## **CLAIMS**

1. A positive resist composition, comprising a resin component (A) which contains acid dissociable, dissolution inhibiting groups, and exhibits increased alkali solubility under action of acid, and an acid generator component (B) that generates acid on exposure, wherein

said resin component (A) is a polymer comprising structural units (a1) represented by a general formula (I) shown below, and a portion of hydroxyl groups of said structural units (a1) are protected by substituting hydrogen atoms of said hydroxyl groups with acid dissociable, dissolution inhibiting groups represented by a general formula (II) shown below:

(wherein, R represents a hydrogen atom or a methyl group)

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$$\begin{array}{c|c}
 & \mathbf{R}^1 \\
 & \mathbf{C} - \mathbf{O} - \mathbf{X} \\
 & \mathbf{R}^2
\end{array}$$

(wherein, R<sup>1</sup> represents an alkyl group of 1 to 5 carbon atoms, R<sup>2</sup> represents an alkyl group of 1 to 5 carbon atoms or a hydrogen atom, and X represents an aliphatic polycyclic group or an aromatic polycyclic hydrocarbon group).

2. A positive resist composition according to claim 1, wherein said polymer of said component (A) further comprises structural units (a2) represented by a general formula (III) shown below:

- 5 (wherein, R represents a hydrogen atom or a methyl group, R<sup>3</sup> represents an alkyl group of 1 to 5 carbon atoms, and n represents either 0, or an integer from 1 to 3).
  - 3. A positive resist composition according to claim 2, wherein said component (A) is a mixture of a polymer, which comprises said structural units (a1), and in which a portion of hydroxyl groups of said structural units (a1) are protected with said acid dissociable, dissolution inhibiting groups, and a copolymer, which comprises said structural units (a1) and said structural units (a2), and in which a portion of hydroxyl groups of said structural units (a1) are protected with said acid dissociable, dissolution inhibiting groups.

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- 4. A positive resist composition according to claim 1, wherein said group X is an adamantyl group or a naphthyl group.
- 5. A positive resist composition according to claim 1, wherein said group R is a20 hydrogen atom.

- 6. A positive resist composition according to claim 1, wherein a weight average molecular weight of said polymer of said component (A), prior to protection with said acid dissociable, dissolution inhibiting groups, is within a range from 2,000 to 30,000.
- 7. A positive resist composition according to claim 1, wherein a polydispersity of said polymer of said component (A), prior to protection with said acid dissociable, dissolution inhibiting groups, is no more than 2.0.
- 8. A positive resist composition according to claim 1, wherein a proportion of said structural units (a1) that have been protected with said acid dissociable, dissolution inhibiting groups, relative to a combined total of all structural units that constitute said polymer of said component (A), is within a range from 5 to 35 mol%.
  - 9. A positive resist composition according to claim 1, further comprising a nitrogencontaining organic compound (D), wherein said component (D) comprises a secondary or tertiary aliphatic amine containing an alkyl group of 7 to 15 carbon atoms.

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- 10. A positive resist composition according to claim 1, which can be used in a method of forming resist patterns comprising an exposure step that uses an electron beam.
- 11. A method of forming resist patterns, comprising steps of applying a positive resist composition according to claim 1 to a substrate, conducting a prebake, performing selective exposure, and then conducting post exposure baking (PEB), and performing alkali developing to form a resist pattern.